Sounds Good to Me:

How Communication Mode and Framing Affect Audit Quality

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Abstract: Throughout the course of an audit, audit associates routinely interact with the client to request explanations and evidence regarding financial statement account balances. Because client management may have incentives to misrepresent their financial statements during an audit, management's communications with the auditor may be intentionally vague or incomplete. Ideally, when client communications are vague or incomplete audit associates follow-up with client management to corroborate or refute the client's explanations. Given a choice, audit associates often prefer to communicate via email rather than in person. Face-to-face communications with the client can be intimidating to audit associates due to their relative youth, inexperience, and lack of status. We examine whether auditors' assessments of client communications and the need to follow-up are influenced by (i) communication mode (face-to-face or email), and (ii) the frame of the client's response (as explanation or fact). We find that auditors who receive a face-to-face response from the client that is framed as an 'explanation' assess the response as higher quality (i.e., more reasonable, useful, complete and precise) compared to the other three conditions. As a result, these auditors are less likely to follow-up with the client, potentially impairing audit quality and increasing audit risk. We attribute this decrease in auditor skepticism to distractions inherent in face-to-face communications that cause the auditors to more readily accept the client's explanation at face value. We recommend that audit associates (a) use email communication where feasible, and (b) frame their task as listening for relevant 'facts' and ask the client to provide the relevant 'facts' when face-to-face meetings are unavoidable or otherwise desirable.

Key words: Auditor-client interactions, Distraction-Conflict theory, framing, skepticism, mode of communication, computer mediated communications

I. Introduction

Throughout the course of an audit, audit associates routinely interact with the client to request explanations and evidence regarding financial statement account balances. Because client management may have incentives to misrepresent their financial statements during an audit, management's communications with the auditor may be intentionally vague or incomplete. Ideally, when client communications are vague or incomplete audit associates follow-up with client management to corroborate or refute the client's explanations and then communicate the results of their fieldwork to their superiors - audit seniors, managers, and/or partners, who monitor the work of the audit associates to ensure sufficient and appropriate audit evidence is obtained to support the audit opinion. The quality of the audit depends on auditors' use of professional skepticism to evaluate the explanations and evidence received from the client.[1]

Our research investigates whether (i) the communication mode (face-to-face or email) and (ii) the framing of the client's response (as an explanation or fact) affect the ability of auditors to assess the quality of client communications and appropriately follow-up. Examining the effect of communication mode is important because, when audit associates inquire with clients in the evidence gathering process, they often can choose their mode of communication, e.g., the auditor chooses whether to have a face-to-face conversation with the client or send the client an email.[3]

[1] There is no universally accepted definition of audit quality (Knechal, Krishnan, Pevzner, Shefcik, and Velury 2014). One definition is the joint probability that the audit will discover a material misstatement and appropriately act on this discovery (DeAngelo 1981). PCAOB standards define professional skepticism as an attitude that includes a questioning mind and a critical assessment of audit evidence.

[3] Auditors participating in this study indicated that over 85% of their interactions with the client take place via email or in face-to-face conversations.

Typically, audit associates prefer electronic communication such as email and this preference continues to strengthen with generational differences (Nellen, Manly, and Thomas 2009; Reutter 2010; Wilson and Rember 2010). There are several reasons for this preference. First, email is generally considered more convenient and less intrusive by both the sender and receiver, which is beneficial as auditors balance the need to obtain necessary audit evidence while not annoying or bothering the client through excessive questioning (Guenin-Paracini, Malsch and Tremblay 2015). Second, audit associates often experience social anxiety when they inquire face-to-face with a client, because client managers are typically older, more experienced, and more knowledgeable about the company's financial reporting.[4] When social anxiety is high, it is difficult for the auditor to focus on the content of the communication. Rather, they generally focus on their own anxiety – how the auditor feels, how the client is looking at them, etc. The use of email reduces social anxiety by allowing the auditor to carefully compose their communication to the client and to carefully process the content of communications received from the client.

Audit partners, on the other hand, tend to prefer that audit associates communicate with clients in person (Bennett and Hatfield 2018; Westermann, Bedard, and Earley 2015). Partners believe face-to-face conversations are more effective for relationship building and audit partners believe nonverbal cues observed in face-to-face conversations are helpful for interpreting the truthfulness of managers' responses.[5] Therefore, the challenge is for audit associates to maintain appropriate skepticism when interacting face-to-face with clients so that the relationship building objectives can be achieved without impairing audit quality or increasing audit risk.

[4] Social anxiety is defined by Schlenker and Leary (1982) as "the state created when a person is motivated to make a certain impression on an audience, either real or imagined, but doubts that this impression can be made."
[5] Professionals tend to be overconfident in their ability to detect deception via nonverbal cues (McCornack and Parks 1986; Holderness 2013).

We investigate whether using email for communications between auditors and client management may have advantages over face-to-face communication that have not been fully recognized in auditing practice. First, we predict that email will facilitate auditors' ability to accurately assess the quality of the client's response, compared to face-to-face communication by limiting social anxiety and allowing the auditor to focus on the content of the communication. Second, we predict that when face-to-face communication is necessary or desirable, the frame of the client's response will affect the auditors' ability to accurately assess the quality of the client's response. When the client responds to an auditor inquiry with "facts", rather than an "explanation", the framing helps the auditor define their task more clearly as evaluating the validity of the "facts." We predict this sharper focus will counteract the distraction from social anxiety. Third, we predict that the auditors' likelihood of following up with the client is mediated by their quality assessments of the clients communication.

We conducted a 2x2 between-participants experiment with 199 auditors. Each auditor read a short case in which a fictitious client was asked about the valuation of a particular product line in the client's inventory. The auditor was then provided with a response from the client that was purposely vague and omitted important information relevant to the inventory balance. All participants received a response with nearly identical content; however, they received the response as either a written email or a video message, which is our proxy for the face-to-face condition. Each response was framed either as an explanation ("I want to provide an explanation about the inventory valuation") or as list of the facts ("I've outlined the facts regarding the inventory valuation") with enumeration of the content. All other content in the communication was kept constant across conditions (see Appendix A for the text of the responses). Each auditor then assessed the quality of the client's response (i.e., the reasonableness, usefulness,

completeness and vagueness) and indicated the likelihood they would follow-up with the client with additional questions.

Our results indicate that a face-to-face response from the client that was framed as an explanation was assessed as higher quality than either a video response framed as facts, or than email responses framed as facts or explanation. As a result, auditors were less likely to follow-up with additional questions when a face-to-face response from the client was framed as an explanation, compared to the other three conditions. These results support our hypothesis that auditors are less critical of the client's explanation when received face-to-face. However, when the client claims to be presenting the "facts" but provides the auditor with somewhat vague and incomplete information, auditors react with focused skepticism similar to the email conditions.

Given that clients are often asked to provide auditors with explanations of account balances and many of these interactions occur in-person, our results indicate that there may be an underappreciated benefit of using email as a communication channel. Email reduces the social anxiety associated with face-to-face meetings and the distraction it engenders. Email also allows auditors more time to process and re-process the client's response. Both increase the likelihood of auditors using healthy professional skepticism. However, email exchanges are not always possible and are less likely to encourage relationship building. While the auditor may have little influence on how the client responds, our results suggest that requesting the client to provide the facts, rather than an explanation, can help audit associates avoid distractions and maintain appropriate skepticism.

The paper is organized as follows. Section II presents a literature review and the theory underlying our predictions. Section III presents our experimental method. Section IV discusses results, implications and limitations. Section V concludes.

II. Literature Review, Theory and Hypotheses

Auditor and Client Interactions and Social Anxiety

Auditors try to strike a delicate balance between obtaining necessary audit evidence and not annoying or bothering the client through excessive questioning (Guenin-Paracini et al. 2015). During fieldwork, auditors at the associate level have extensive interactions with client management.[6] Staff auditors are typically significantly younger, less experienced, and less knowledgeable about financial accounting issues than client management. Experimental evidence from Bennett and Hatfield (2013) suggests that new auditors (i) find client management intimidating because of the differences in age, experience, and knowledge, (ii) avoid face-to-face interaction, and (iii) are reluctant to follow up with management on audit matters that require further evidence. Obviously, any failure to follow-up with client management could have serious implications for audit quality if not detected in the review process. Bennett and Hatfield (2013) also find that approximately half of the participants who did not follow-up with clients documented their work in a vague or inappropriate manner. Such poor quality documentation reduces the likelihood that supervising auditors would identify the problem during their review. When interactions with "intimidating" client management were accomplished through email, participants were more likely to follow-up with requests for additional evidence. Audit associates generally prefer email because, in contrast to face-to-face communication, it reduces situational pressure (i.e., social anxiety) by allowing the sender to carefully compose what needs to be communicated and the receiver to review and process the communication more extensively

[6] Bennett and Hatfield (2013) surveyed auditors and found that 86% of staff auditors report meeting with management three to five times per week, while 37% report meeting daily. Ninety-three percent of our participants report interacting with clients at least once per day.

(Brazel et al. 2004; Maruping and Agarwal 2004). However, communicating through email may not always be possible or desirable.

The Benefits and Drawbacks of Face-to-Face Communication

Face-to-face communication has greater social presence than email communication because the sender and receiver can see and hear the other person, and they receive immediate feedback through body language and tone-of-voice from the recipient (Robert and Dennis 2005). Westermann, Bedard and Earley (2015) report that audit partners express concerns with staff auditors' preference to communicate with clients electronically and discourage using email as a primary communication channel with clients primarily for two reasons. First, audit partners are conscious of building and maintaining client relationships for the future benefit of the firm, and believe this is best accomplished through face-to-face conversations. Second, professional guidance advises auditors to attend to verbal and nonverbal responses that might indicate deception (AICPA 2002; CICA 2000). Audit partners believe that nonverbal cues observed face-to-face are helpful in interpreting the truthfulness of managers' responses.

However, face-to-face communications can also increase an individuals' predisposition to believe what they are being told (Holderness 2013; Buller, Strzyzewski and Hunsaker 1991) because nonverbal cues can be distracting and easily misinterpreted. The challenge is for audit associates to maintain appropriate skepticism when interacting face-to-face with clients so that the relationship building objectives can be achieved without impairing audit quality or increasing audit risk.

Distraction-Conflict Theory

Extensive research in social psychology documents that individuals experience social anxiety when communicating with others in person, particularly when the other party is

perceived as more knowledgeable, or when they perceive they will be evaluated by others (Geen 1991). Interestingly, the presence of others enhances performance on simple tasks but hinders performance on more complex tasks. Research on this seeming paradox or inverted U-shaped performance curve has developed Distraction-Conflict Theory (Baron 1986).

Distraction-Conflict Theory predicts that when interacting with others, an individual's attention is distracted by a myriad of stimuli, many of which are irrelevant to the primary task (e.g., how uncomfortable the person feels or looks, the other party's facial expressions, etc.). This overload stimulates the individual to prioritize attention by restricting their attention to a narrower range of stimuli. If this prioritizing restricts the individual to relevant cues and screens out irrelevant cues, the individual's performance improves.

Enhanced performance is more likely on simple tasks where the relevant cues are obvious. On more complex tasks, such as evaluating a client's explanation, performance is likely hindered. Distracted individuals likely do not have the capacity to deeply process "real time" communications because they cannot easily restrict their attention to only what is pertinent to the task at hand. Without deep processing, distracted individuals tend to be less skeptical, ignoring important cues and resorting to various cognitive shortcuts to conserve their limited attention, i.e., they tend to engage in shallow information processing. For example, one could evaluate the consistency rather than the completeness of a client explanation. Consistency matters for a good story and creating a coherent pattern in the story makes it more likely that the story – in our setting, the client's explanation -- will seem acceptable, particularly when the listener lacks knowledge in the area (Kahneman 2011).

Framing the Auditor's Task to Reduce Distraction

A key research question is: Can distraction in face-to-face communications be mitigated by framing the task in a way that prompts distracted auditors to narrow their attention to relevant rather than irrelevant stimuli? Research by Ninio and Kahneman (1974) describes attention as a limited commodity that gets allocated to some stimuli in preference to other stimuli. When irrelevant stimuli draw attention, the processing of relevant stimuli suffers (Ninio and Kahneman 1974). The key is to nudge the individual to allocate attention to desired stimuli. Then only spare capacity, if it exists, will get allocated to irrelevant stimuli. We propose that framing may be a promising intervention to provide that nudge and mitigate distraction.

How can framing do this? According to Russo and Schoemaker (1989) frames are mental structures that individuals use to simplify and organize their decision context or task. The authors use a window frame as a metaphor for this concept; how you "view" or frame the issue influences how you resolve it. Framing a task means defining what must be decided and determining what criteria would cause the decision maker to prefer one option over another (Russo and Schoemaker 1989, p. 2). In the context of an audit associate asking a client about an account balance, the auditor wants to know what facts support or refute the valuation of that account. So, if one adopts that frame it should narrow attention sufficiently to the appropriate stimuli, i.e., what are the facts concerning the account balance and do they support or refute the need for a write-down?

We implement a version of this frame in our experiment. We describe the client's response as "facts" (rather than an "explanation") and enumerate the elements of the response, "number 1…, number 2 …, number 3…." This frame is intended to focus the attention of the associate auditor towards evaluating the quality of the client's response, and away from potential distractions that arise from the stressful face-to-face situation. The word "fact" is defined as a

statement that can be objectively verified. The use of this frame essentially activates the goal to listen to the client's communication with the purpose of determining its ability to be corroborated (or refuted). If this frame is successful, we expect that associate auditors who receive a face-to-face response framed as "facts" will evaluate the quality similar to participants in the "email" conditions. Auditors in the email condition are not under social pressure when they evaluate this communication from the client. We expect auditors in the non-framed condition (face-to-face conversation receiving an explanation) to have lower performance due to their distracted attention. They will rate the client's explanation as higher in quality, and therefore require less follow-up. Our hypotheses follow:

H1: When the client responds with an incomplete and vague explanation via email rather than face-to-face, auditors are more likely to (i) assess the response from the client as lower in quality and (ii) follow-up with additional questions.

H2: When the client responds face-to-face, auditors who receive an incomplete and vague communication that is framed as enumerated "facts" are more likely to (i) assess the response from the client as lower quality and (ii) follow-up with additional questions compared to those who receive the same communication framed as an "explanation."

H3: Auditors follow-up judgments are mediated by their evaluations of the quality of the client's response.

III. Experiment

Participants

The participants in this study were made available through the *Center for Audit Quality* (CAQ) Research Advisory Board grant.[7] Participants are 199 auditors with an average of 3.5 years of audit experience. Fifty-nine percent are currently employed at Big 4 accounting firms (with the remaining 41% coming from other multi-national firms), 80% are CPAs, 52% are male, and 93% report that they interact with clients at least once per day.[8]

Experimental Case

A web-based experiment was administered to all participants using *Qualtrics* software. Auditors read a short case about the inventory valuation of a fictitious client (adapted from Durkin 2018). Participants are asked to assume the role of an audit engagement team member who is performing a preliminary analysis of the finished goods inventory balance for a client. A pending acquisition by another company is discussed in the case making it clear that it is in the client's best interest to have impressive numbers for certain balance sheet and income statement accounts.

The case suggests that one of the client's products has a potential obsolescence problem. Participants are informed that they had previously asked the client about the valuation of the product and received a response from the client (each participant receives only one response based on which one of the four conditions they were randomly assigned to). The client's

[7] The CAQ is an autonomous, nonpartisan, and nonprofit public policy organization based in Washington, DC, and is supported by a the membership of US accounting firms registered with the Public Company Accounting Oversight Board (PCAOB). In 2009, the CAQ began awarding grants to fund auditing-related scholarly research, including providing access to auditors working in public accounting and funding.

[8] We requested access to auditors with at least 2 years and preferably 3-4 years of experience in auditing for our instrument. The actual experience of the 199 auditors ranges from 22 months to 96 months. One hundred and fifty-six of the 199 auditors (78%) have between 3 and 5 years of experience (36 to 60 months). One hundred and ninety-six participants indicated their current position or rank within the firm was senior associate. Of the 199 participants, eight failed the manipulation check question. The analysis does not change if they are removed. Given this, we include them in the analysis.

response is presented in the form of an email (email condition) or a video message (face-to-face condition).[9]

The content of the response is the same in all four conditions; it contains some truthful information that was described in the case but omits other important information included in the case that suggests a write-down of the inventory balance may be necessary (see Appendix A for the text of the responses).

In all conditions, participants are asked to provide their judgments of the client's response with respect to reasonableness, usefulness, completeness, and vagueness. Although the auditors weren't provided with an opportunity to engage in a back and forth conversation with the client, we ask participants how *likely* they are to follow-up with the client to ask additional questions. Participants then respond to debriefing questions, including their current position in public accounting and experience interacting with clients, and provide demographic information.

Independent Variables

The experiment is a 2x2 between-participants design. First, we manipulate the *communication mode* (email or face-to-face) between the client and the auditor. The response from the client is received in the form of an email or a video message. The actor playing the role of the client was selected to give the impression that he was older and more experienced than the

[9] Although the video message will likely reduce the level of distraction experienced by the auditor compared to an actual face-to-face setting, we believe the comparison between video and email communications will still reveal significant, albeit weaker, differences and will capture the underlying construct in Distraction-Conflict Theory. To ensure the appearance of the client or the sound of his voice weren't driving the results, all participants (including those in the email condition) watched a short (4 second) video at the beginning of the case where the client introduced himself. The data were collected in two phases (before and after the 2018 busy season) and the introduction video was added prior to commencing the second phase of data collection. When added as a covariate, the time when the data were collected was not significant.

auditor. He was instructed to read the script with an easy-going approachable demeanor to minimize the feeling of intimidation.[12]

Second, we manipulated the *frame of the communication* (explanation or facts) from the client. When the response was framed as an explanation, the client began by saying "I want to provide an explanation about the inventory valuation." When the response was framed as the facts, the client began by saying "I've outlined the facts regarding the inventory valuation." In the "facts" frame condition, the remainder of the content was presented by the client in a list (numbered 1 to 3), whereas in the "explanation" frame condition, the identical content was presented without enumeration. Although the communication mode and frame vary, the content of the communication from the client to the auditor is held constant.

Dependent Variables

The first dependent variable is the auditor's assessment of the quality of the client's response. To construct this variable, we average the auditor's responses to four questions related to the quality of the client's response. The auditors were asked to assess the (i) reasonableness, (ii) usefulness, (iii) completeness, and (iv) vagueness of the client's response. Assessments were on an eleven-point scale (from 1 = "not at all" to 11 = "very"). The responses with respect to vagueness were reverse coded so the means can be interpreted in the same direction as the other three questions. The descriptive statistics are presented in Table 1. The second dependent variable is the auditor's assessment of the likelihood of following up with the client. The

[12] The video message was pretested with undergraduate auditing students. We confirmed that the client's tone and demeanor were not viewed as intimidating or threatening by the students. Rather, the tone was assessed between friendly and neutral. Bennett and Hatfield (2013) examined the intimidation of an older, more aggressive client as compared to a kinder client of a similar age to the participant. To mimic a realistic audit setting, we chose a client older than the average audit associate.

auditors responded using an eleven-point scale (from 1 = "very unlikely" to 11 = "very likely"). The descriptive statistics are presented in Table 2.

Covariate

We also measure the pressure the auditors perceived from the client. The auditors indicated their agreement with the following statement: "When asking about the inventory balance, I felt pressure from Mark [the client] to avoid recommending a write-down" using a seven-point scale (from 1 = "strongly agree" to 7 = "strongly disagree").

IV. Results

Univariate Analysis

Table 1, Panel A shows the mean (standard deviations) of Quality assessments, and the number of participants in each of the four conditions.[13] The perceived quality of the client's response was lowest in the email/facts condition (4.14), consistent with auditors being most skeptical in this condition. The perceived quality of the client's response was highest in the face-to-face/explanation cell (4.92), consistent with auditors being most distracted and least skeptical in this condition.

The results of an ANOVA on Quality are presented in Table 1, Panel B. The results indicate that the assessed quality of the clients' response is significantly higher when the response is framed as an explanation ($F = 4.65$, $p = 0.03$, two-tailed) and when the communication occurs face-to-face ($F = 3.96$, $p = 0.05$, two-tailed). The interaction between

[13] The participants were randomly assigned to one of the four conditions by the Qualtrics software. The number of participants in each cell varies slightly as the assignment to the condition occurs when the participants begin the case. Some participants started but did not finish the case resulting in different numbers of completed instruments for each condition (only completed instruments are included in the data).

communication mode and framing of the client's response is insignificant (F = 0.19, p = 0.74, two-tailed).

In Table 1, Panel C, we examine the simple main effects of communication mode and framing of the client's response on auditor's judgement of the quality of the auditor's response. To test H1, we examine the simple effect of communication mode (email or face-to-face) within the explanation condition. We use one-tailed tests because we have directional predictions. Consistent with H1, we find that participants receiving an email explanation from the client considered the client's response to be of significantly lower quality than participants receiving a face-to-face explanation (t = 1.65, p = 0.05, one-tailed). To test H2, we examine the simple main effect of framing (explanation or fact) in the face-to-face condition. Consistent with H2, we find that participants who receive a face-to-face response from the client framed as facts assess the client's response as significantly lower quality than participants who receive a face-to-face response framed as an explanation (t = 1.71, p = 0.05, one-tailed). To jointly test H1 and H2, we examine the simple main effect of a face-to-face explanation on the assessed quality of the client's response relative to the other three conditions. We find the quality evaluation is significantly higher in this cell (t = 2.52, p = 0.01, one-tailed), which is again consistent with auditors being more distracted and less skeptical.

Table 2 presents univariate results where likelihood of follow-up with the client is the dependent variable. Panel A presents the mean likelihood, standard deviations, and the number of participants in each of the four conditions. The likelihood of following up with the client was highest in the email/facts cell (10.63), which is consistent with auditors being least distracted and most skeptical in this condition. The likelihood of following up with the client was lowest in the

face-to-face/explanation cell (10.21), which is consistent with auditors being most distracted and least skeptical in this condition.

The results of the ANOVA are presented in Table 2, Panel B. The results are generally weaker than those reported for quality assessments in Panel B or Table 1. The likelihood of follow-up is numerically higher when the response from the client is framed as facts, but the test does not meet conventional levels of significance ($F = 2.38$, $p = 0.12$, two-tailed). Similarly, the likelihood of follow-up is numerically greater with email than with face-to-face, but the difference is not significant at conventional levels ($F = 1.78$, $p = 0.18$, two-tailed). The interaction between communication mode and framing of the client's response is not significant ($F = 0.33$, $p = 0.57$, two-tailed).

In Table 2, Panel C we provide simple main effects of communication mode and framing of the client's response on the likelihood of follow-up. To test H1, we examine the simple effect of communication mode (email or face-to-face) within the explanation condition. We again use one-tailed tests because we have directional predictions. Consistent with H1, we find that participants receiving an email explanation from the client were more likely to follow-up with the client than participants receiving a face-to-face explanation ($t = 1.38$, $p = 0.08$, one-tailed). To test H2, we examine the simple main effect of framing (explanation or fact) in the face-to-face condition. Consistent with H2, we find participants receiving a face-to-face response framed as facts are significantly more likely to follow-up with the client than participants receiving a face-to-face response framed as an explanation ($t = 1.45$, $p = 0.08$). To jointly test H1 and H2, we compare the face-to-face explanation on the likelihood of follow-up with the client compared to the other three conditions. We find the likelihood of follow-up is

significantly lower in this cell than in the other three cells ($t = 1.96$, $p = 0.03$, one-tailed), which again is consistent with these auditors being more distracted and less skeptical.

Mediation Analysis

Our distraction theory posits that participants in the face-to-face conditions tend to be more distracted in this situation due to the greater social anxiety associated with face-to-face communications. As a result, performance decreases in complex tasks such as evaluating the quality of the client's response and determining the necessary follow-up. We hypothesize that this poorer performance will manifest in less critical evaluations of the client's response. If the quality of the response is perceived as higher, judgments of the need for further follow-up will be lower. However, if this distraction can be managed using framing, the distracted individual can focus more on the task at hand and the performance effects may be mitigated. Quality evaluations would be lower and the need for follow-up greater, perhaps similar to the email conditions. The univariate results discussed above from Tables 1 and 2 suggest this is largely what we find. However, the univariate analyses do not reflect the relationship between quality and follow-up implicit in our theory. Our arguments suggest that quality evaluations mediate judgments regarding follow-up. To better capture this dependency between quality assessments and follow-up, we analyze our data using a mediation model from Hayes (2013). We use Model 4 (Hayes 2013, p. 445) and the Process macro in SPSS. See Figure 1.

Our independent variable is face-to-face/explanation (F2F/Exp), which is coded 1 if participants are in the face-to-face communication condition and the client's response is framed as an explanation, and 0 otherwise. Our mediating variable is Quality and the dependent variable is Follow-up, both as defined in the univariate analyses. Pressure (measured on a 7-point scale) is included as a covariate because we find that perceived pressure is associated with both the

mediator and the dependent variable – but is not significantly correlated with our independent variable.

The results of the path analysis are presented in Figure 1. Our independent variable, F2F/Exp is positively related to quality evaluation ($p < 0.01$, one-tailed), which in turn, is negatively related to the judged likelihood of follow-up ($p < 0.01$, one-tailed). These are the *direct* mediated effects. The independent variable is also *indirectly* related to Follow-up, i.e., not through the quality assessment ($p = 0.05$, one-tailed). The covariate, Pressure, is positively related to quality evaluation and negatively related to follow-up, indicating that auditors who feel more pressure when communicating with a client tend to be more accepting of the client's explanation and are less likely to follow-up, regardless of the independent variable manipulations.

V. Discussion and Conclusion

In this study we examine how the mode and frame of communication from clients to auditors affects auditors' assessment of the quality of the client's response and the likelihood of auditor follow-up. There are limitations when studying auditor-client interactions in an experimental setting. First, the experimental design does not allow for back and forth interaction between the auditor and the client. We chose to standardize the client response to ensure that changes in auditor judgment were a result of the manipulated variables. A related limitation is using a video of the client providing the response, as it is not the same as a true face-to-face interaction. Both the use of video and the lack of a back and forth conversation, likely reduced the social anxiety felt in this setting. Our results would likely be strengthened in a true face-to-face conversation. Finally, as with many experiments, the auditors participating were not

explicitly accountable for their judgment. The participating firms were supportive of the study though and provided the auditors with ample time to complete it, which likely engendered some uniform accountability across conditions.

We contribute to recent literature examining the use of email communication between audit associates and audit clients. In both interviews and surveys, audit partners have expressed concerns that associates are not meeting face-to-face with the client frequently enough (Westermann et al. 2015; Bennett and Hatfield 2018). Previous studies have found that (i) audit associates may avoid follow-up with the client when they feel intimidated and face-to-face inquiry is the only option (Bennett and Hatfield 2013), but (ii) if auditors *do* decide to follow-up, they will ask more follow-up questions when interacting face-to-face compared to via email (Bennett and Hatfield 2018). However, Bennett and Hatfield (2018) control intimidation by choosing a confederate for the client who is similar in age to the participants and maintains a pleasant demeanor. In this study, we chose a client who is older and more experienced than the auditors (which we believe is more realistic), but who maintains a neutral or pleasant demeanor (to avoid excessive intimidation that forces our results to obtain). In addition, rather than focusing on the auditor's initial questions to the client, we examine the auditor's reaction to the client's explanation of an inventory valuation. This allows us to examine whether the way the client frames their response also affects the auditor's judgments and decisions.

When the client frames the response as an "explanation" of the inventory valuation and auditors receive this information face-to-face, auditors assess the quality of the response as higher than when the response is framed as "facts" or when it is received by email. In this important and likely common situation, auditors are less likely to follow-up with additional questions as compared to the other three conditions. They are likely more distracted and less

skeptical in this condition. The vast majority of auditors in this study (93%) indicate that they interact with a client at least once per day. On average, these auditors indicated that 37% of these interactions occur in-person. During these face-to-face interactions, clients are often asked to provide auditors with explanations for balance fluctuations, management estimates, business activity, etc. Our results suggest that when auditors seek an explanation, there may be an underappreciated benefit in using email. Audit associates are expected to build rapport with the client, and while face-to-face interactions certainly promote this, email interactions should be considered for certain requests. When face-to-face interactions are needed, our research suggests that audit associates should be trained to consider the way they pose the question to the client as it may affect (i) how the client frames the response, and (ii) how the auditor processes the information. While associate auditors cannot completely control how the client responds, they can use the frame of "facts" to focus themselves on their task, reduce distractions, and maintain more appropriate skepticism.

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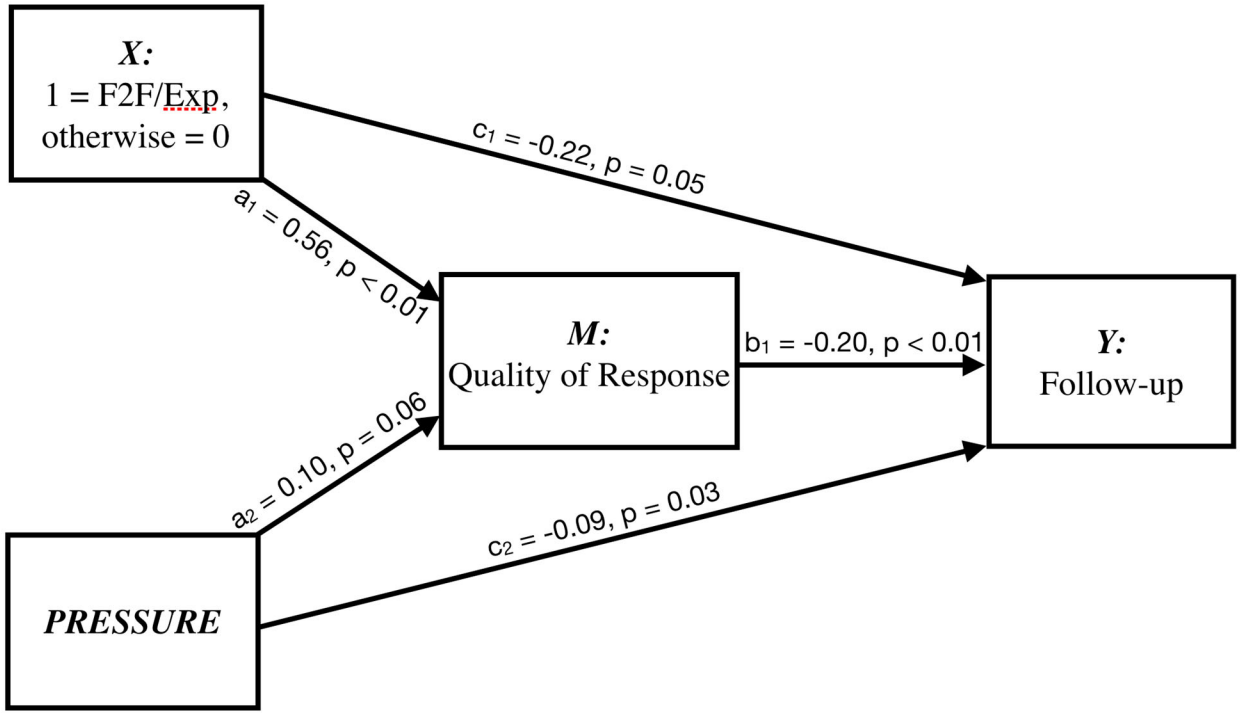
FIGURE 1

Mediation Analysis



Notes:

The univariate analyses in Tables 1 and 2 do not reflect the relationship between quality and follow-up implicit in our theory. Our arguments suggest that quality evaluations mediate the judgments regarding follow-up. To better capture this phenomenon, we analyze our data using mediation Model 4 from Hayes (2013, p. 445) and the Process macro in SPSS as referenced in his book.

Our independent variable X is the Face-to-Face/Explanation (F2F/Exp) condition. It is coded 1 if participants heard the received the communication via video, and the client's response was framed as an explanation. Responses from the other three conditions were coded 0.

Our mediator M is the average of participants' evaluations of the quality of the client's response as "useful," "complete," "vague" (with coding reversed) and "reasonable" — all on an scale of 1-11. Higher numbers indicate higher evaluations of quality.

Our dependent variable Y is participants' rating of how likely they are to follow-up on the client's response using a scale of 1-11. Higher numbers indicate greater likelihood of follow-up.

Pressure is participants' response to how much pressure they feel from the client on a 1-11 scale with higher numbers indicating more pressure.

All p-values are one-tailed because we have directional predictions of the relationships between the variables.

TABLE 1

Univariate Tests of the Effect of Priming and Communication Mode on Auditors' Quality Evaluation

Dependent Variable is Evaluation of the Quality of the Client's Response

Panel A: Descriptive Statistics on Quality – overall means (with standard deviations in parentheses)

	Frame		
Communication Mode	Explanation	Fact	Row Means
Email	Cell 1 **4.48** *(1.11)* n = 57	Cell 2 **4.14** *(1.38)* n =49	**4.32** *(1.25)* n = 106
Face-To-Face	Cell 3 **4.92** *(1.37)* n = 47	Cell 4 **4.45** *(1.47)* n = 46	**4.69** *(1.43)* n = 93
Column Means	**4.68** *(1.24)* n = 104	**4.29** *(1.43)* n = 95	

Panel B: ANOVA, where Dependent Variable is Response Quality Evaluation

Source	df	MS	F-Stat	p-value
Frame (Explanation vs Facts)	1	8.18	4.65	0.03
Communication Mode (Email vs Face-To-Face)	1	6.97	3.96	0.05
Frame x Communication Mode	1	0.19	0.11	0.74
Residual	195	1.76		

Panel C: Simple Main Effects: Effect of Communication Mode and Frame

Comparison:	Difference	t-stat	p-value
Explanation: Email vs Face-To-Face (Cell 1 vs 3)	0.44 (0.26)	1.65	0.05
Face-To-Face: Explanation vs Fact (Cell 3 vs 4)	0.47 (0.27)	1.71	0.05
Face-To-Face /Explanation vs other three cells (Cell 3 vs the average of Cells 1, 2, and 4)	0.56 (0.22)	2.52	0.01

Notes:
P-values are two-tailed in Panel B and one-tailed in Panel C where we test specific directional hypotheses.
Our dependent variable is the assessed quality of the clients response, calculated as the average of participants' evaluations of the client's response as useful, complete, vague (reversed) and reasonable, on a scale of 1-11. Higher numbers indicated higher evaluations of quality.

TABLE 2

The Effect of Priming and Communication Mode on Auditors' Follow-up Judgments

Dependent Variable is the Likelihood that the Auditor will Follow-up after receiving the Client's Response

Panel A: Descriptive Statistics on Likelihood of Follow-up – overall means (with standard deviations in parentheses)

	Frame		
Communication Mode	Explanation	Fact	Row Means
Email	Cell 1	Cell 2	
	10.49	**10.63**	**10.56**
	(0.97)	*(0.95)*	*(0.96)*
	n = 57	n =49	n = 106
Face-To-Face	Cell 3	Cell 4	
	10.21	**10.52**	**10.37**
	(1.28)	*(0.86)*	*(1.10)*
	n = 47	n = 46	n = 93
Column Means	**10.37**	**10.58**	
	(1.12)	*(0.91)*	
	n = 104	n = 95	

Panel B: ANOVA, where Dependent Variable is Likelihood of Follow-up

Source	df	MS	F-Stat	p-value
Frame (Explanation vs Facts)	1	2.51	2.38	0.12
Communication Mode (Email vs Face-To-Face)	1	1.87	1.78	0.18
Frame x Communication Mode	1	0.35	0.33	0.57
Residual	195	1.05		

Panel C: Simple Main Effects: Effect of Communication Mode and Frame

Comparison:	Difference	t-stat	p-value
Explanation: Email vs Face-To-Face (Cell 1 vs 3)	0.44 (0.26)	1.38	0.08
Face-To-Face: Explanation vs Fact (Cell 3 vs 4)	0.47 (0.27)	1.45	0.08
Face-To-Face /Explanation vs other three cells (Cell 3 vs the average of Cells 1, 2, and 4)	0.56 (0.22)	1.96	0.03

Notes:
P-values are two-tailed in Panel B and one-tailed in Panel C where we test specific directional hypotheses.
Our dependent variable is the participants' rating of how likely they are to follow-up on the client's response using a 1-11 point scale. Higher numbers indicate greater likelihood of follow-up.

Appendix A

The text below was either shown in the format of an email or was used as the script for the client to read in the video (face-to-face). The text of the explanation (fact) message was the same between email and face-to-face conditions.

Client Response with Explanation Frame

Hi – I saw your email and wanted to provide you with an explanation about the M4 valuation. Luckily, inventory valuation has been straightforward this year As you know, the M4 is one of our best products and we've built a base of customers who depend on it. There was only a slight decline in orders for the M4 in our last quarter – otherwise sales have been stable. One of our competitors has developed a similar product, but I'm not concerned about it. They haven't shipped a single product and it certainly doesn't warrant an adjustment in the year-end balance.

Best Regards,

Mark

Client Response with Fact Frame

Hi – I saw your email and wanted to get back to you. Luckily, inventory valuation has been straightforward this year. I've outlined the facts regarding the M4 valuation below.

1. The M4 is one of our best products and we've built a base of customers who depend on it.
2. There was only a slight decline in orders for the M4 in our last quarter – otherwise sales have been stable.
3. One of our competitors has developed a similar product, but I'm not concerned about it. They haven't shipped a single product and it certainly doesn't warrant an adjustment in the year-end balance.

Best Regards,

Mark